

Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM040817\  
 Data File : BM009620.D  
 Acq On : 07 Apr 2017 09:51  
 Operator : SJ/MA  
 Sample : I2525-17  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 BNA\_M  
 ClientSampleId :  
 CB367

Manual Integrations  
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mohammad  
 4/10/2017 1:23:10 PM

Quant Time: Apr 07 11:07:19 2017  
 Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM040417-PAH.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Apr 07 11:00:00 2017  
 Response via : Initial Calibration

| Internal Standards          | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 1) 1,4-Dichlorobenzene-d4   | 7.84  | 152  | 146719   | 20.00 | ng/ul  | 0.00     |
| 2) Naphthalene-d8           | 10.64 | 136  | 584162   | 20.00 | ng/ul  | 0.00     |
| 6) Acenaphthene-d10         | 14.49 | 164  | 323130   | 20.00 | ng/ul  | 0.00     |
| 12) Phenanthrene-d10        | 17.24 | 188  | 744576   | 20.00 | ng/ul  | 0.00     |
| 18) Chrysene-d12            | 21.42 | 240  | 938789   | 20.00 | ng/ul  | 0.00     |
| 23) Perylene-d12            | 23.74 | 264  | 901367   | 20.00 | ng/ul  | 0.00     |
| System Monitoring Compounds |       |      |          |       |        |          |
| 3) 2,4-Dichlorophenol-d3    | 10.26 | 165  | 205345   | 22.86 | ng/uL  | 0.00     |
| 7) Acenaphthylene-d8        | 14.18 | 160  | 982454   | 31.02 | ng/ul  | 0.00     |
| 10) Fluorene-d10            | 15.48 | 176  | 699034   | 30.69 | ng/ul  | 0.00     |
| 15) Anthracene-d10          | 17.33 | 188  | 1090965m | 30.62 | ng/ul  | 0.00     |
| 19) Pyrene-d10              | 19.63 | 212  | 1268970  | 32.89 | ng/ul  | 0.00     |
| 26) Benzo(a)pyrene-d12      | 23.60 | 264  | 1236470  | 31.07 | ng/ul  | 0.00     |
| Target Compounds            |       |      |          |       |        |          |
|                             |       |      |          |       | Qvalue |          |
| 4) Naphthalene              | 10.69 | 128  | 37151    | 1.24  | ng/ul# | 92       |
| 8) Acenaphthylene           | 14.21 | 152  | 57578    | 1.81  | ng/ul  | 96       |
| 9) Acenaphthene             | 14.55 | 153  | 28708    | 1.31  | ng/ul# | 81       |
| 11) Fluorene                | 15.54 | 166  | 30007    | 1.12  | ng/ul# | 99       |
| 14) Phenanthrene            | 17.28 | 178  | 696576   | 16.64 | ng/ul  | 97       |
| 16) Anthracene              | 17.37 | 178  | 168405   | 3.89  | ng/ul  | 98       |
| 17) Fluoranthene            | 19.30 | 202  | 1474079m | 28.28 | ng/ul  |          |
| 20) Pyrene                  | 19.66 | 202  | 1434936  | 28.07 | ng/ul  | 95       |
| 21) Benzo(a)anthracene      | 21.40 | 228  | 839449   | 15.82 | ng/ul  | 98       |
| 22) Chrysene                | 21.46 | 228  | 829762   | 17.05 | ng/ul  | 97       |
| 24) Benzo(b)fluoranthene    | 23.04 | 252  | 1184916  | 21.26 | ng/ul# | 96       |
| 25) Benzo(k)fluoranthene    | 23.08 | 252  | 330507m  | 6.22  | ng/ul  |          |
| 27) Benzo(a)pyrene          | 23.64 | 252  | 808432   | 15.25 | ng/ul  | 96       |
| 28) Indeno(1,2,3-cd)pyrene  | 26.11 | 276  | 583769   | 9.82  | ng/ul  | 96       |
| 29) Dibenzo(a,h)anthracene  | 26.11 | 278  | 175407m  | 3.47  | ng/ul  |          |
| 30) Benzo(g,h,i)perylene    | 26.84 | 276  | 576871   | 11.77 | ng/ul# | 91       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

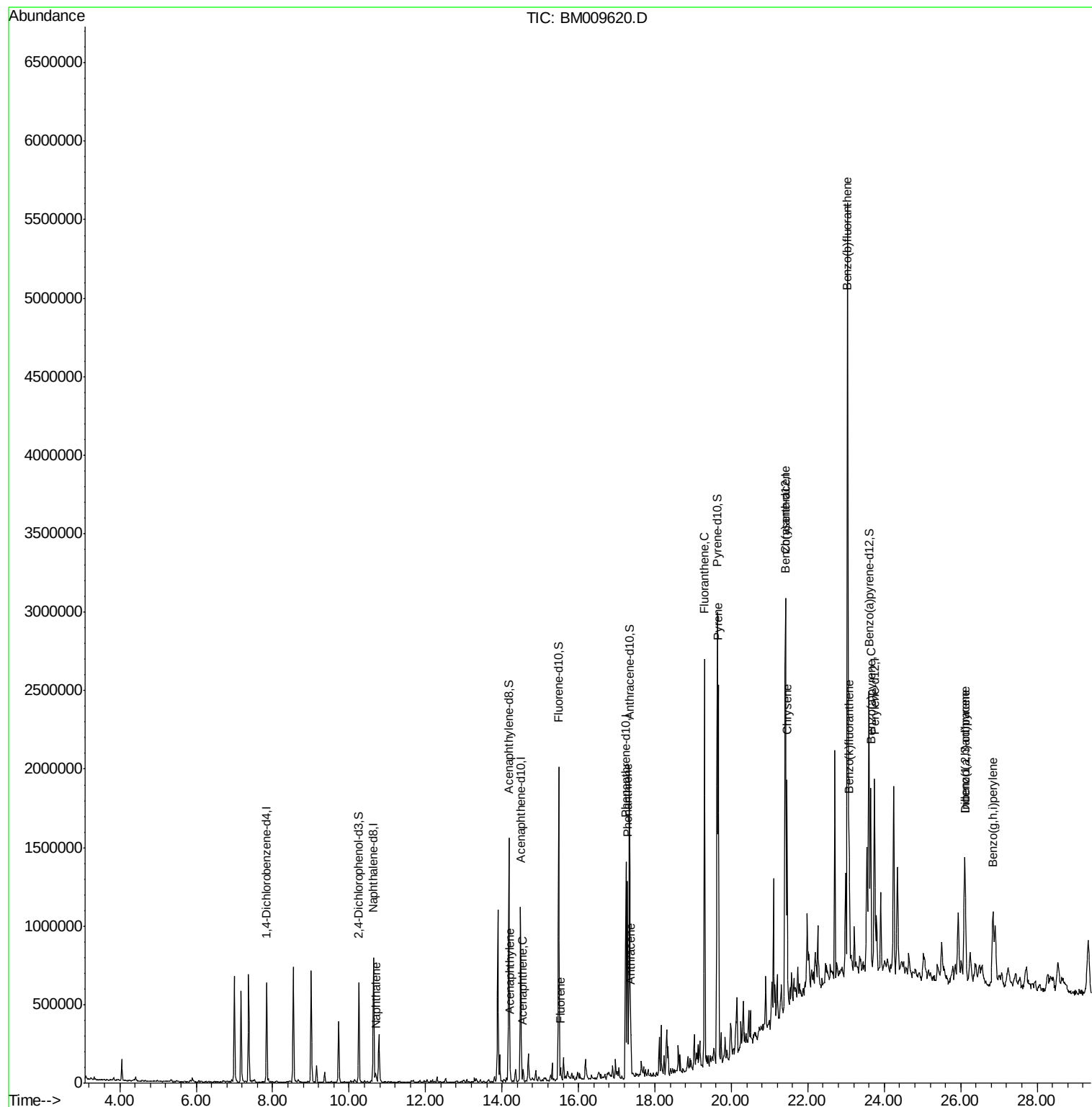
Data Path : Z:\HPCHEM1\BNA\_M\DATA\BM040817\  
Data File : BM009620.D  
Acq On : 07 Apr 2017 09:51  
Operator : SJ/MA  
Sample : I2525-17  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

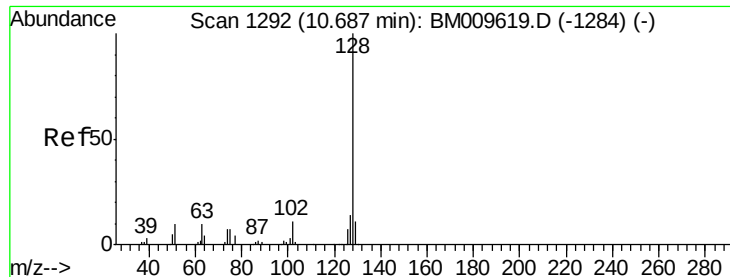
Instrument :  
BNA\_M  
ClientSampleId :  
CB367

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Quant Time: Apr 07 11:07:19 2017  
Quant Method : Z:\HPCHEM1\BNA\_M\METHODS\SOM-EPA-BM040417-PAH.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Apr 07 11:00:00 2017  
Response via : Initial Calibration





#4

Naphthalene

Concen: 1.24 ng/ul

RT: 10.69 min Scan# 1292

Delta R.T. -0.00 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

Instrument :

BNA\_M

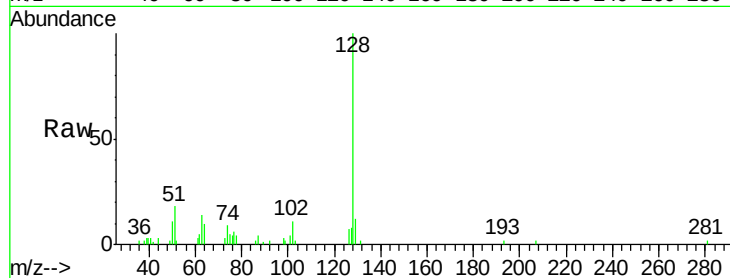
ClientSampleId :

CB367

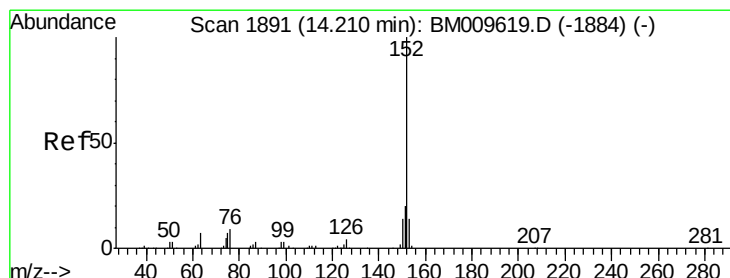
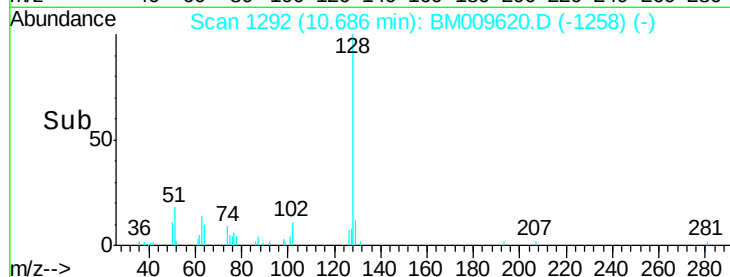
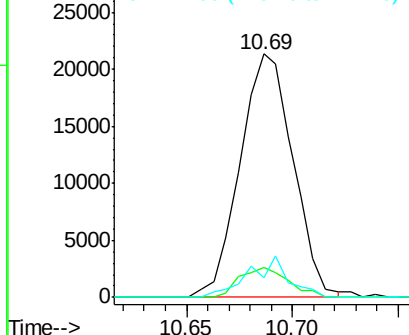
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 37151 |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 129       | 12.2  | 9.1   | 13.7  |
| 127       | 7.9   | 10.6  | 15.8# |

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Abundance Ion 128.00 (127.70 to 128.70): E  
Ion 129.00 (128.70 to 129.70): E  
Ion 127.00 (126.70 to 127.70): E



#8

Acenaphthylene

Concen: 1.81 ng/ul

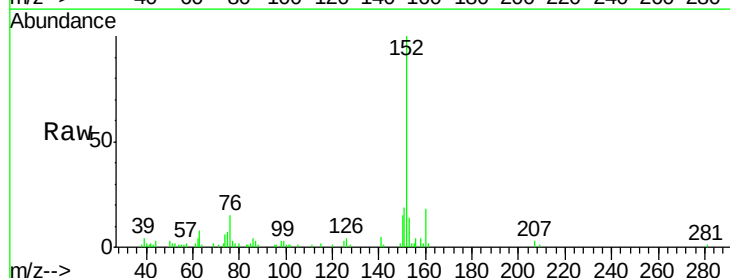
RT: 14.21 min Scan# 1891

Delta R.T. -0.00 min

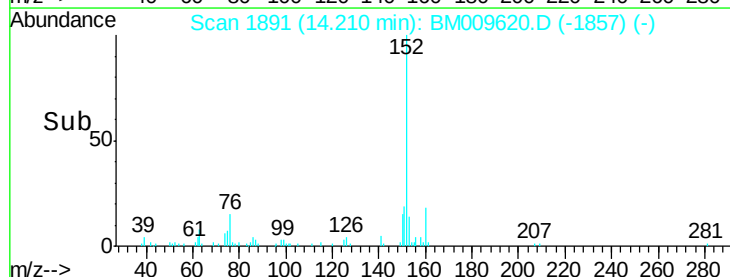
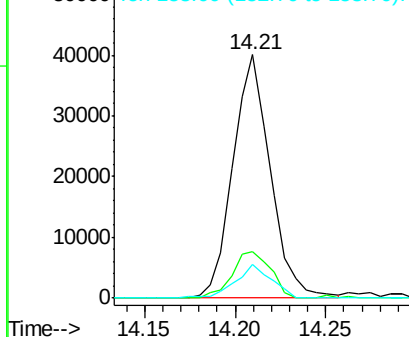
Lab File: BM009620.D

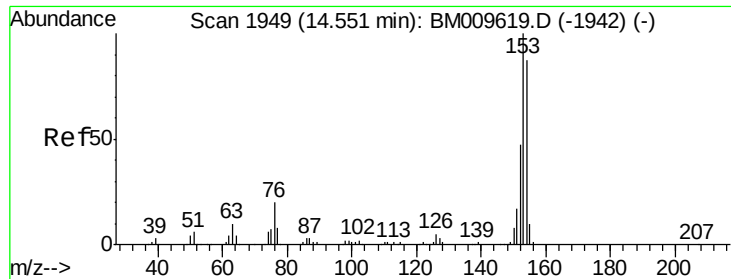
Acq: 07 Apr 2017 09:51

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 152   | Resp: | 57578 |
| Ion Ratio | Lower | Upper |       |
| 152       | 100   |       |       |
| 151       | 19.1  | 17.5  | 26.3  |
| 153       | 13.7  | 10.6  | 16.0  |



Abundance Ion 152.00 (151.70 to 152.70): E  
Ion 151.00 (150.70 to 151.70): E  
Ion 153.00 (152.70 to 153.70): E





#9

Acenaphthene

Concen: 1.31 ng/ul

RT: 14.55 min Scan# 1949

Delta R.T. -0.00 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

Instrument :

BNA\_M

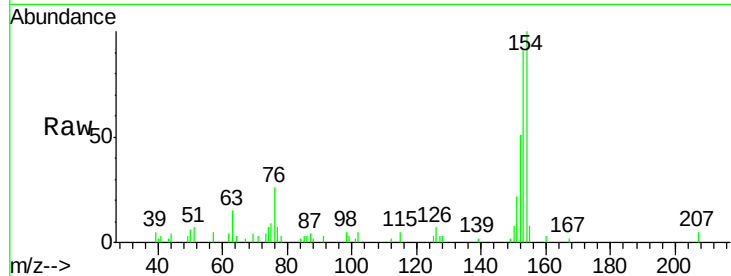
ClientSampled :

CB367

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 153     | 100   |       |        |
| 152     | 56.6  | 37.9  | 56.9   |
| 154     | 110.1 | 71.6  | 107.4# |

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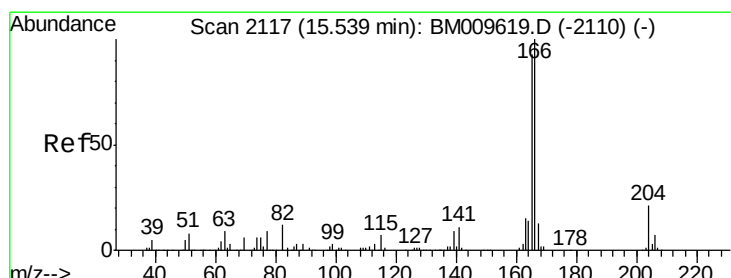
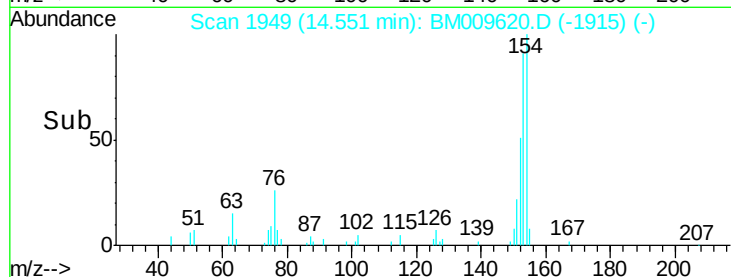
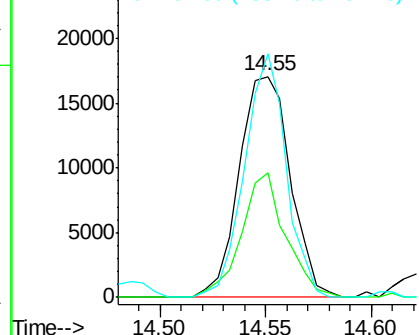


Abundance

Ion 153.00 (152.70 to 153.70): E

Ion 152.00 (151.70 to 152.70): E

Ion 154.00 (153.70 to 154.70): E



#11

Fluorene

Concen: 1.12 ng/ul

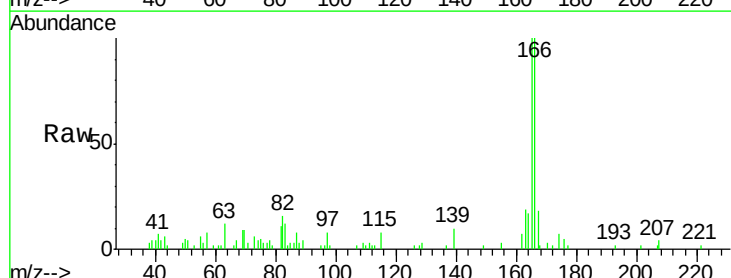
RT: 15.54 min Scan# 2117

Delta R.T. -0.00 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 166     | 100   |       |       |
| 165     | 99.6  | 80.0  | 120.0 |
| 167     | 17.9  | 11.6  | 17.4# |

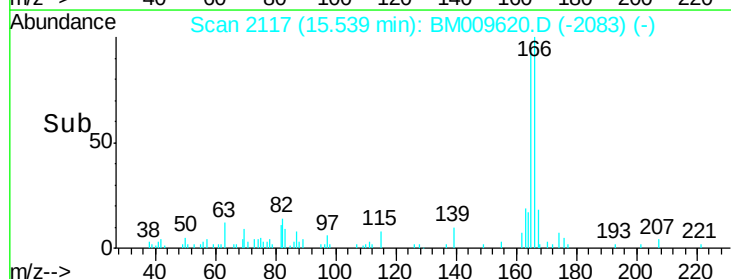
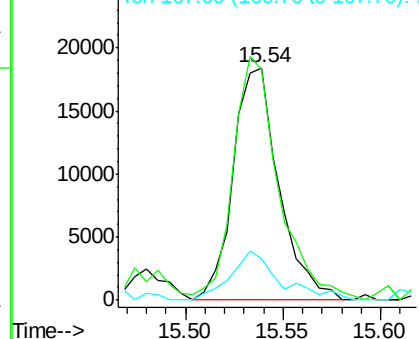


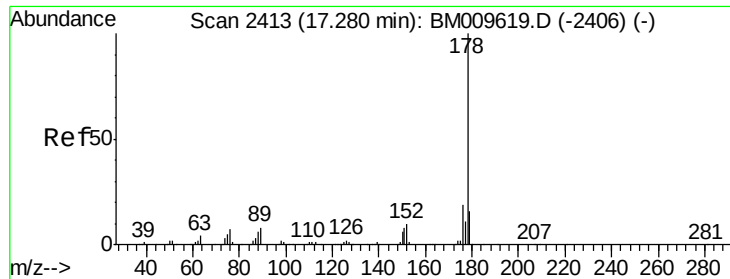
Abundance

Ion 166.00 (165.70 to 166.70): E

Ion 165.00 (164.70 to 165.70): E

Ion 167.00 (166.70 to 167.70): E





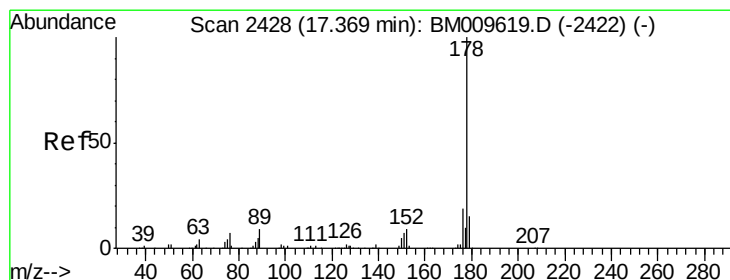
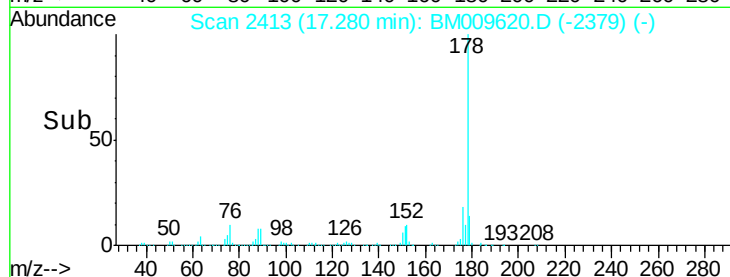
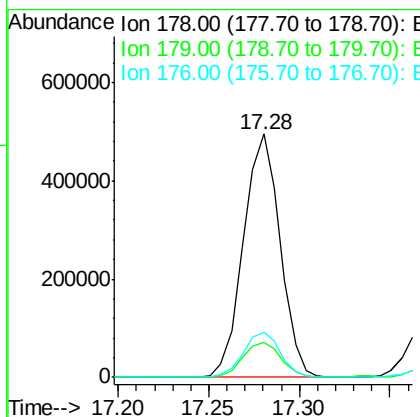
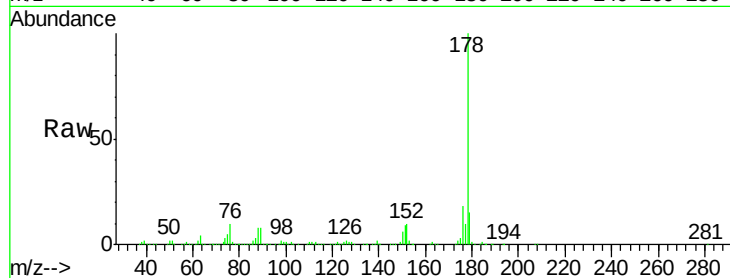
#14  
Phenanthrene  
Concen: 16.64 ng/ul  
RT: 17.28 min Scan# 2413  
Delta R.T. -0.00 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

Instrument :  
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ClientSampleId :  
CB367

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 14.6  | 12.2  | 18.4  |
| 176     | 18.5  | 16.4  | 24.6  |

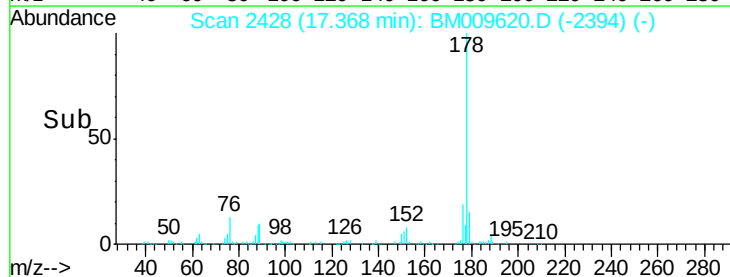
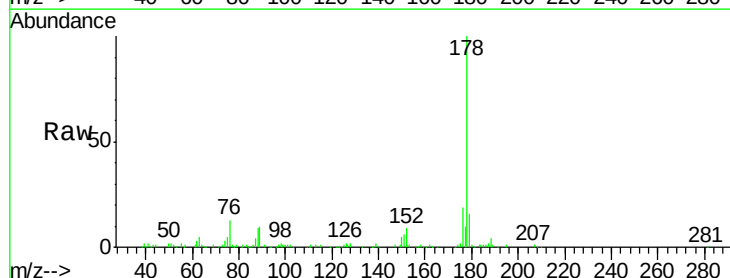
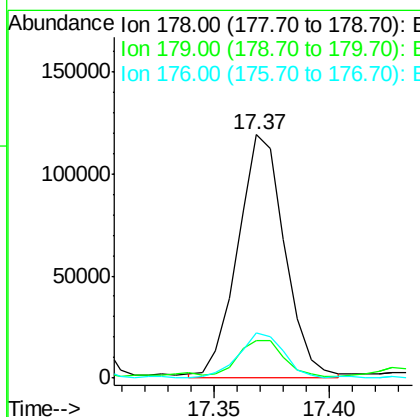
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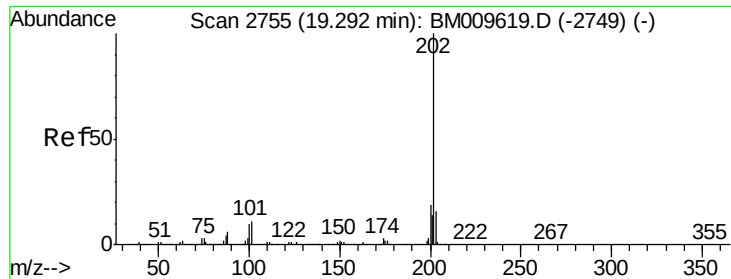
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#16  
Anthracene  
Concen: 3.89 ng/ul  
RT: 17.37 min Scan# 2428  
Delta R.T. -0.00 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 178     | 100   |       |       |
| 179     | 15.5  | 12.7  | 19.1  |
| 176     | 18.8  | 15.8  | 23.8  |





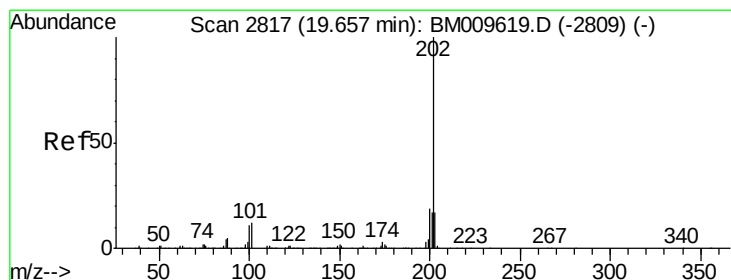
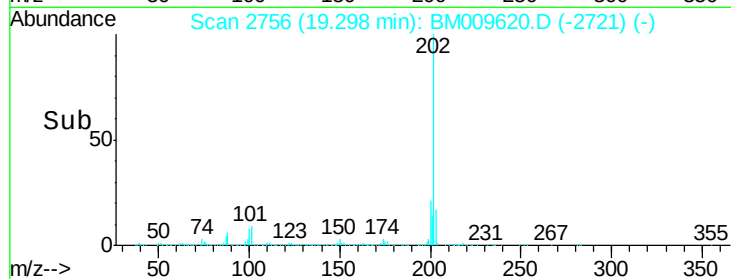
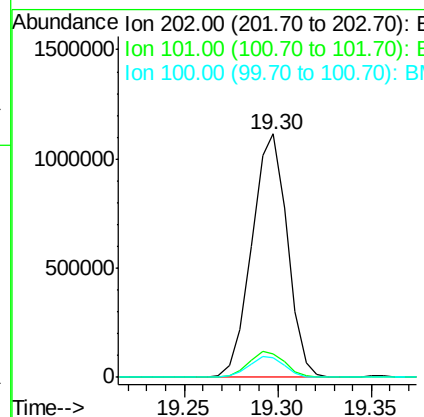
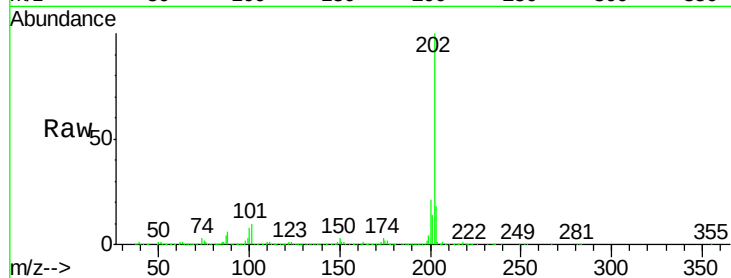
#17  
**Fluoranthene**  
 Concen: 28.28 ng/ul m  
 RT: 19.30 min Scan# 2756  
 Delta R.T. 0.01 min  
 Lab File: BM009620.D  
 Acq: 07 Apr 2017 09:51

Instrument :  
 BNA\_M  
 ClientSampled :  
 CB367

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 9.6   | 9.8   | 14.8# |
| 100     | 8.0   | 7.5   | 11.3  |

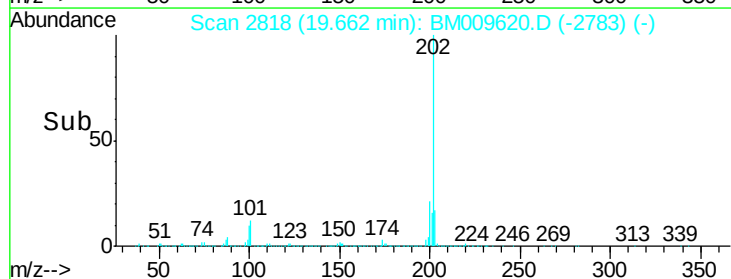
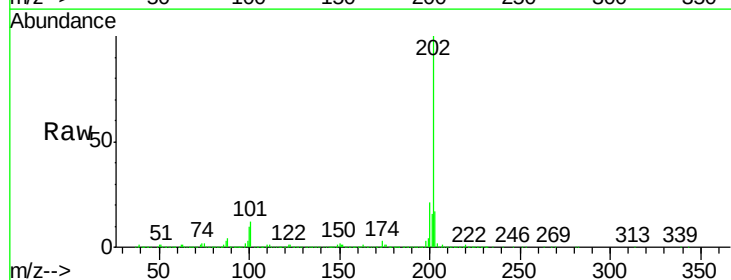
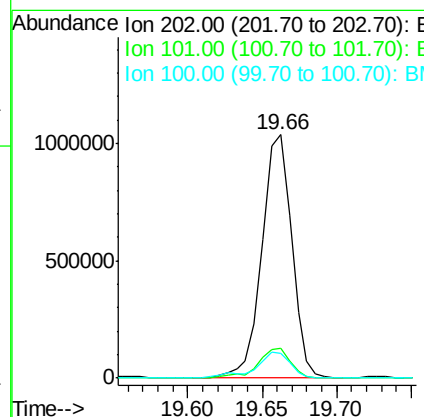
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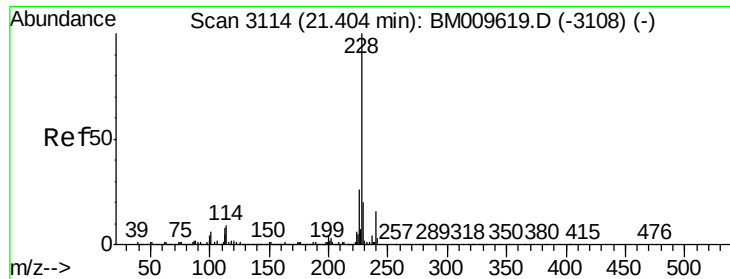
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#20  
**Pyrene**  
 Concen: 28.07 ng/ul  
 RT: 19.66 min Scan# 2818  
 Delta R.T. 0.01 min  
 Lab File: BM009620.D  
 Acq: 07 Apr 2017 09:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 202     | 100   |       |       |
| 101     | 12.3  | 11.2  | 16.8  |
| 100     | 10.0  | 9.8   | 14.6  |





#21

Benzo(a)anthracene

Concen: 15.82 ng/ul

RT: 21.40 min Scan# 3114

Delta R.T. -0.00 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

Instrument :

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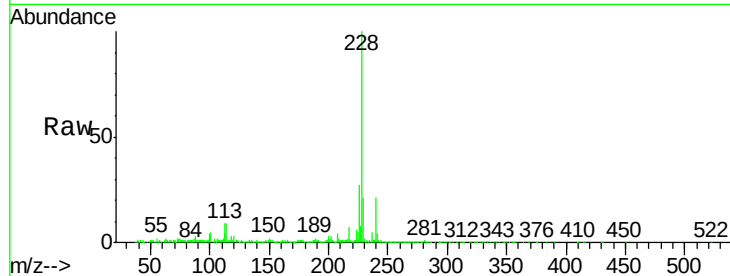
ClientSampleId :

CB367

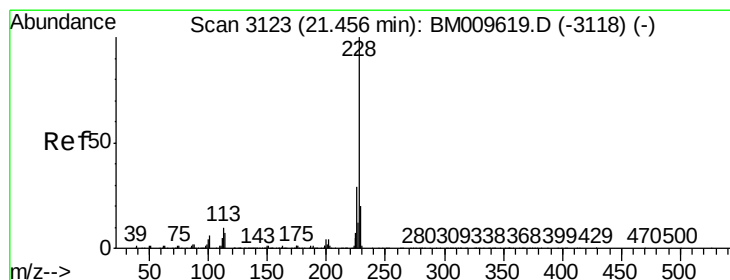
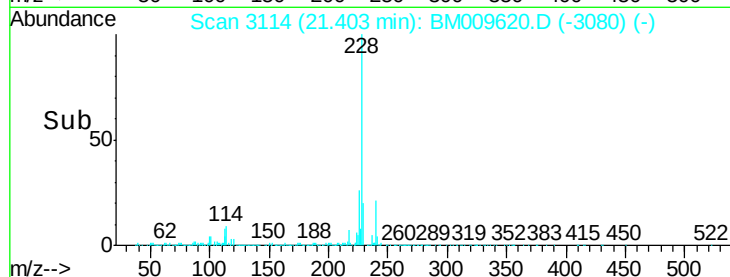
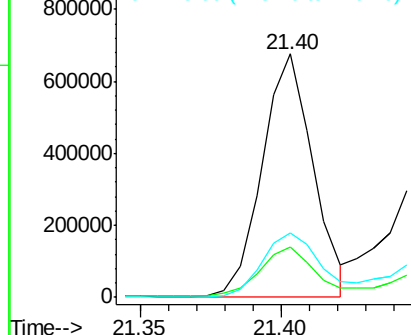
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 839449 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 229       | 20.7  | 15.9  | 23.9   |
| 226       | 26.6  | 22.1  | 33.1   |

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Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 229.00 (228.70 to 229.70): E  
Ion 226.00 (225.70 to 226.70): E



#22

Chrysene

Concen: 17.05 ng/ul

RT: 21.46 min Scan# 3123

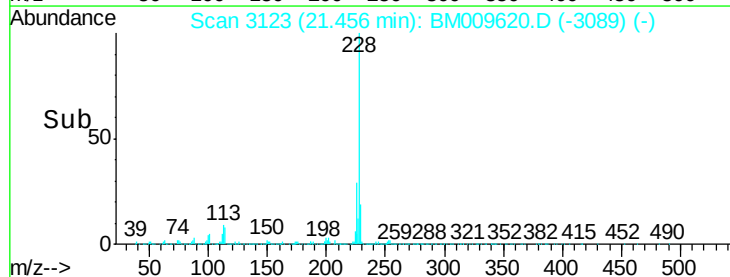
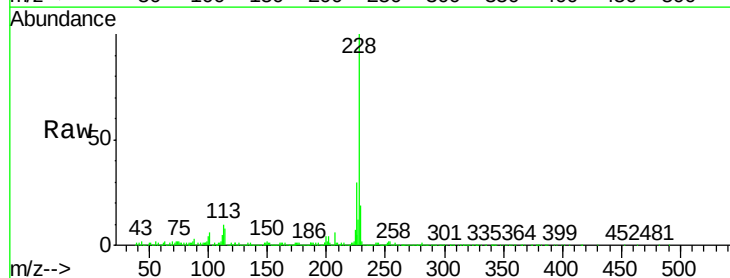
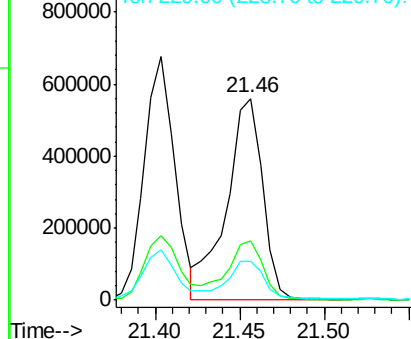
Delta R.T. -0.00 min

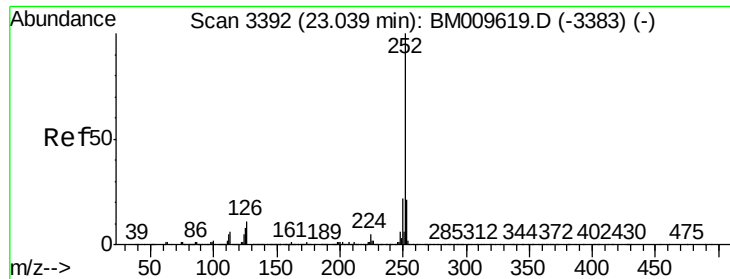
Lab File: BM009620.D

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|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 228   | Resp: | 829762 |
| Ion Ratio | Lower | Upper |        |
| 228       | 100   |       |        |
| 226       | 29.6  | 25.0  | 37.6   |
| 229       | 19.0  | 16.6  | 25.0   |

Abundance Ion 228.00 (227.70 to 228.70): E  
Ion 226.00 (225.70 to 226.70): E  
Ion 229.00 (228.70 to 229.70): E





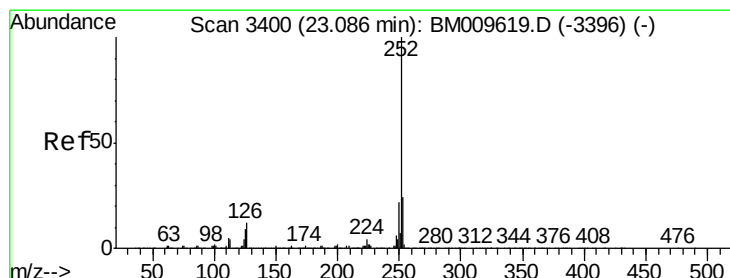
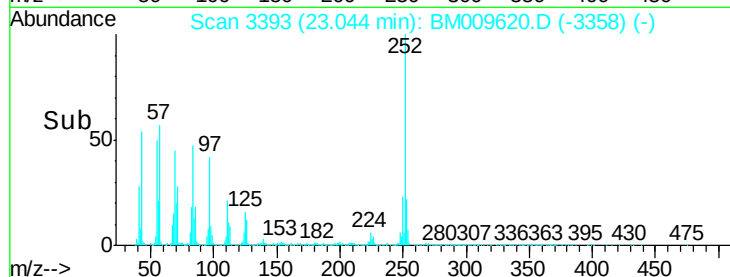
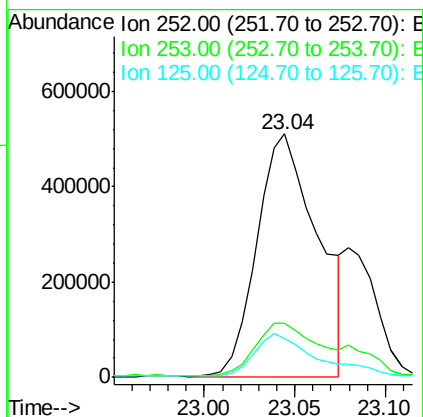
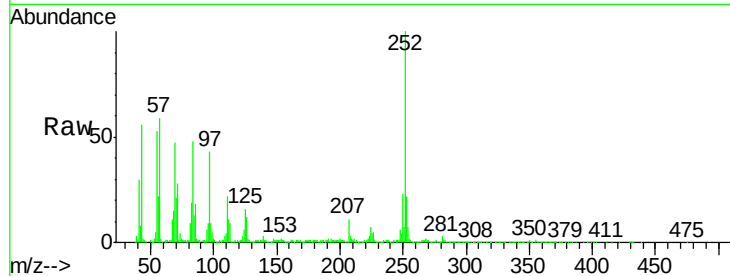
#24  
Benzo(b)fluoranthene  
Concen: 21.26 ng/ul  
RT: 23.04 min Scan# 3393  
Delta R.T. 0.01 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

Instrument :  
BNA\_M  
ClientSampled :  
CB367

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 22.5  | 17.8  | 26.6  |
| 125     | 15.9  | 9.4   | 14.0  |

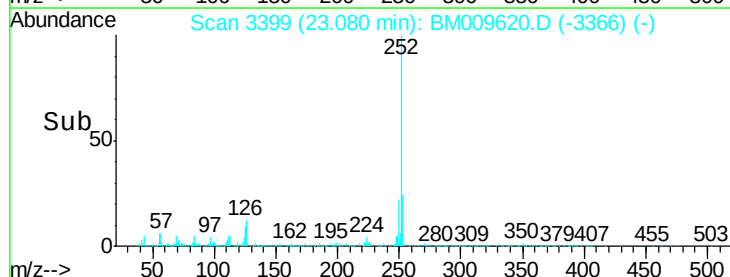
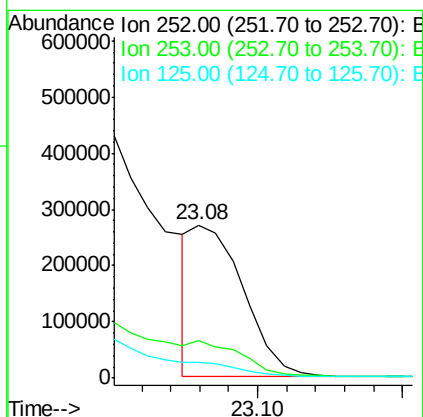
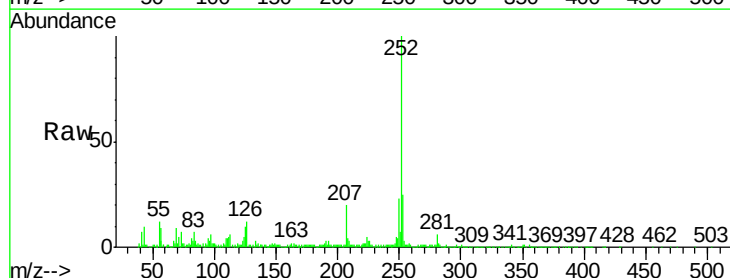
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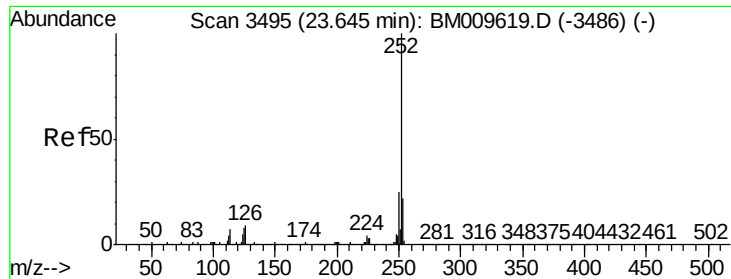


#25  
Benzo(k)fluoranthene  
Concen: 6.22 ng/ul m  
RT: 23.08 min Scan# 3399  
Delta R.T. -0.01 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 252     | 100   |       |       |
| 253     | 24.8  | 17.4  | 26.2  |
| 125     | 9.9   | 8.8   | 13.2  |







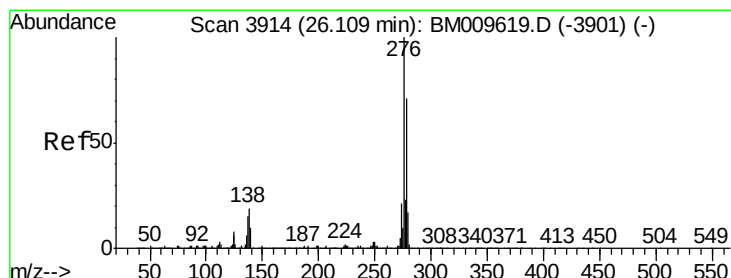
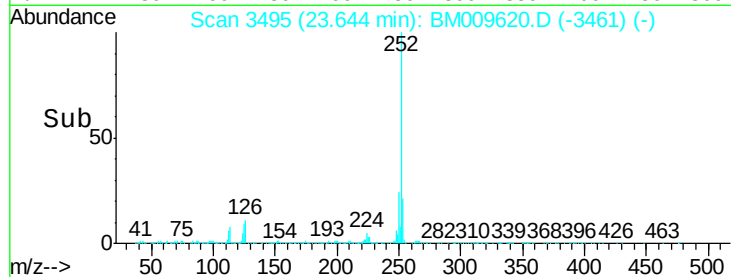
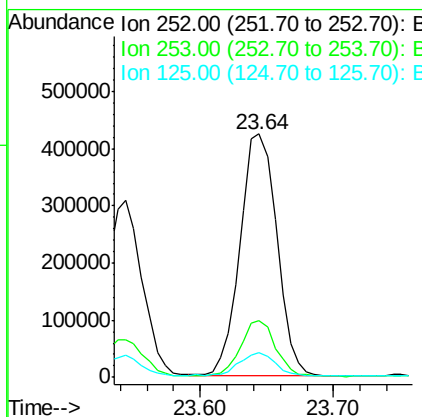
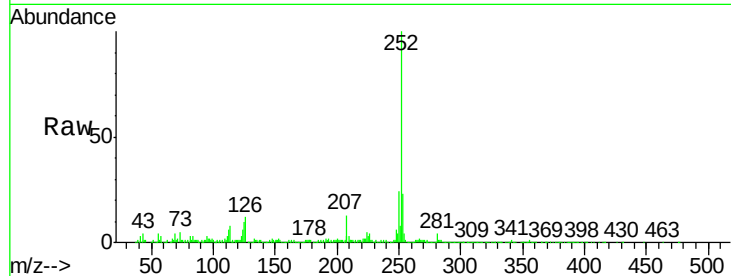
#27  
Benzo(a)pyrene  
Concen: 15.25 ng/ul  
RT: 23.64 min Scan# 3495  
Delta R.T. -0.00 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

Instrument :  
BNA\_M  
ClientSampleId :  
CB367

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 252     | 100   | 808432 |       |       |
| 253     | 23.1  |        | 17.1  | 25.7  |
| 125     | 10.0  |        | 9.4   | 14.2  |

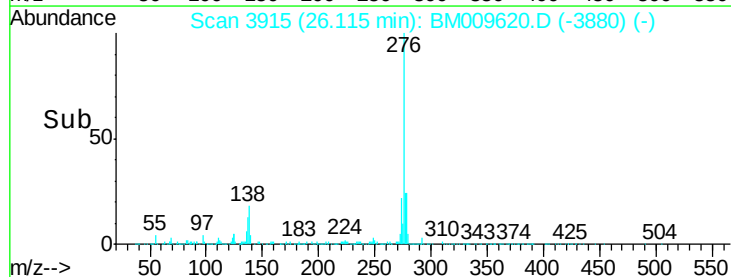
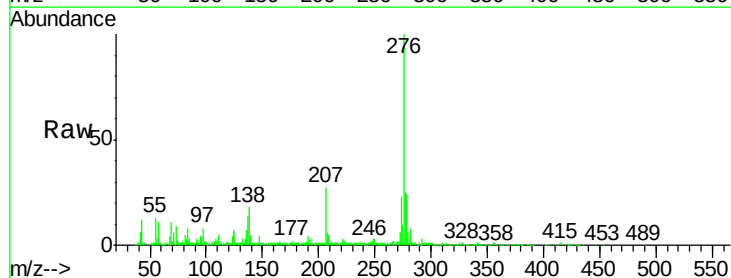
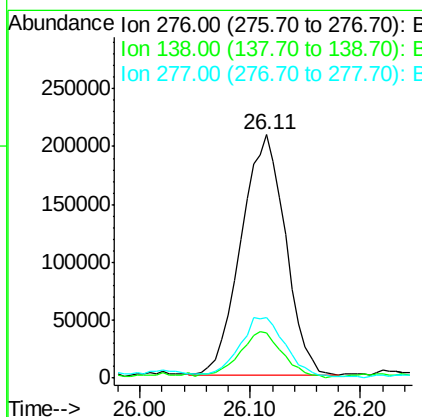
Manual Integrations  
APPROVED

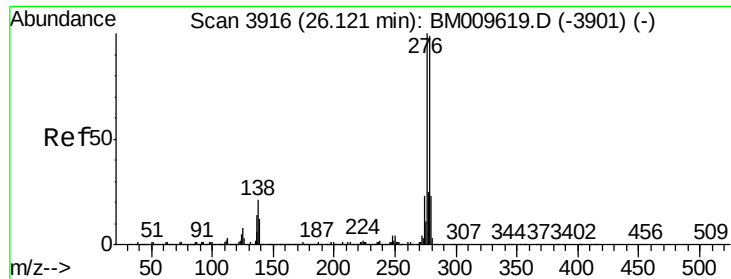
mohammad  
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#28  
Indeno(1,2,3-cd)pyrene  
Concen: 9.82 ng/ul  
RT: 26.11 min Scan# 3915  
Delta R.T. 0.01 min  
Lab File: BM009620.D  
Acq: 07 Apr 2017 09:51

| Tgt Ion | Ratio | Resp   | Lower | Upper |
|---------|-------|--------|-------|-------|
| 276     | 100   | 583769 |       |       |
| 138     | 18.3  |        | 17.8  | 26.6  |
| 277     | 24.8  |        | 19.4  | 29.0  |





#29

Dibenzo(a,h)anthracene

Concen: 3.47 ng/ul m

RT: 26.11 min Scan# 3915

Delta R.T. -0.01 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

Instrument :

BNA\_M

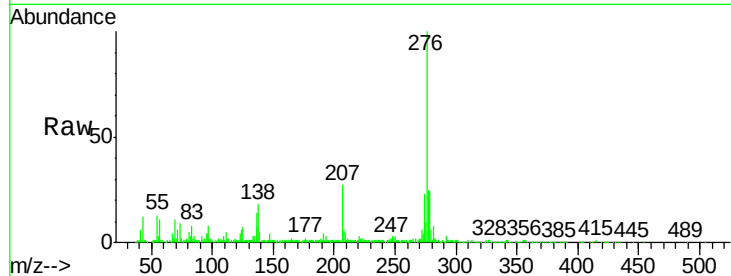
ClientSampleId :

CB367

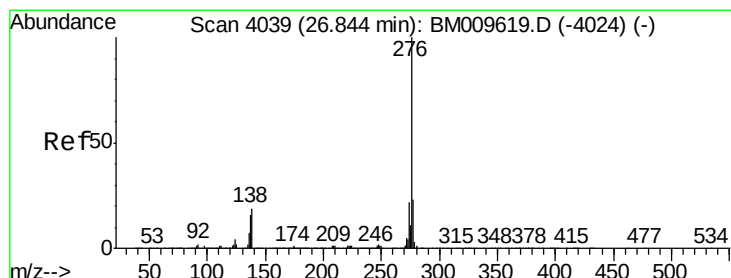
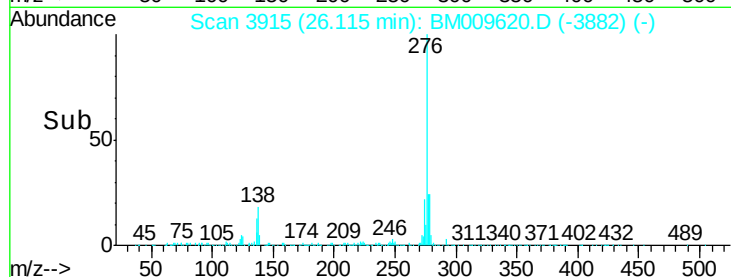
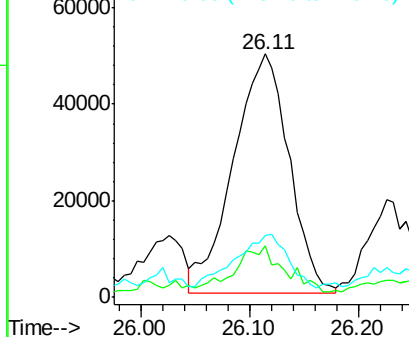
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 278   | Resp: | 175407 |
| Ion Ratio | Lower | Upper |        |
| 278       | 100   |       |        |
| 139       | 21.0  | 14.0  | 21.0#  |
| 279       | 25.5  | 20.6  | 31.0   |

Manual Integrations  
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4/10/2017 1:23:10 PM



Abundance Ion 278.00 (277.70 to 278.70): E  
Ion 139.00 (138.70 to 139.70): E  
Ion 279.00 (278.70 to 279.70): E



#30

Benzo(g,h,i)perylene

Concen: 11.77 ng/ul

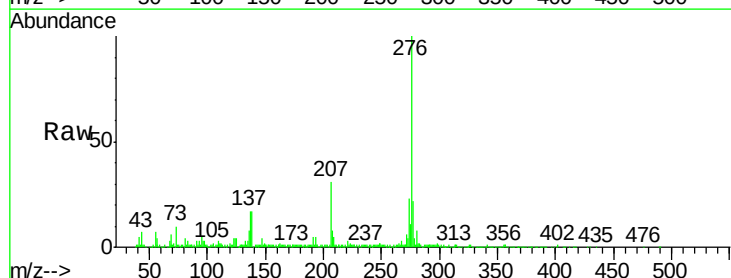
RT: 26.84 min Scan# 4039

Delta R.T. -0.00 min

Lab File: BM009620.D

Acq: 07 Apr 2017 09:51

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 276   | Resp: | 576871 |
| Ion Ratio | Lower | Upper |        |
| 276       | 100   |       |        |
| 138       | 17.3  | 19.0  | 28.4#  |
| 277       | 22.0  | 19.7  | 29.5   |



Abundance Ion 276.00 (275.70 to 276.70): E  
Ion 138.00 (137.70 to 138.70): E  
Ion 277.00 (276.70 to 277.70): E

